

Claims

1. A resin modifier (C) obtained by reacting a polyolefin (A) having a group which reacts with a carbodiimide group, and a carbodiimide group-containing compound (B), wherein the content of the carbodiimide group is from 1 to 200 mmol per 100 g of the resin modifier.

2. The resin modifier (C) according to claim 1, wherein the resin modifier is a compatibilizer.

3. The resin modifier (C) according to claim 1, wherein the polyolefin (A) is a polymer satisfying the following formula (1);

$$0.1 < Mn / (100 * f / M) < 6 \quad (1)$$

wherein f is an amount (g/mol) of the compound having a group which reacts with a carbodiimide group, M is a content (wt%) of residue of the compound having a group which reacts with a carbodiimide group, and Mn is a number average molecular weight of the polyolefin.

4. The resin modifier (C) according to claim 1, wherein the carbodiimide group-containing compound (B) is a polycarbodiimide.

5. The resin modifier (C) according to claim 1, wherein the polyolefin (A) having a group which reacts with a carbodiimide group is the polyolefin (A) having at least one selected from a carboxyl group, an amide group, an amino group and a hydroxyl group.

6. The resin modifier (C) according to claim 1, wherein the polyolefin (A) having a group which reacts with a carbodiimide group is the polyolefin (A) having a maleic group.

7. A polar group-containing polymer composition (F) comprising from 1 to 30% by weight of the resin modifier (C) according to claim 1, from 99 to 20% by weight of a polar group-containing polymer (D), and from 0 to 80% by weight of an olefin polymer (E), provided that the sum of (C), (D) and (E) is 100% by weight.

8. The polar group-containing polymer composition (F) according to claim 7, wherein the polar group-containing polymer (D) is a polar group-containing polymer containing at least one selected from a carboxyl group, an amide group, an amino group and a hydroxyl group.

9. The polar group-containing polymer composition (F) according to claim 7, wherein the polar group-containing polymer (D) is at least one selected from a polyester, a polyamide, and an ethylene vinyl alcohol polymer.

10. The polar group-containing polymer composition (F) according to claim 7, wherein the polar group-containing polymer (D) is at least one selected from a polyethylene terephthalate, a polyethylene terephthalate for recycling, a polybutylene terephthalate, a polylactic acid, an ethylene vinyl alcohol copolymer, and an aliphatic polyamide.

11. The polar group-containing polymer composition (F)

according to claim 7, wherein the polar group-containing polymer (D) is a polylactic acid.

12. A polar group-containing polymer composition (F) comprising a resin modifier (C) obtained by reacting a polyolefin (A) having a maleic group with a carbodiimide group-containing compound (B), and having a carbodiimide group content of from 1 to 200 mmol per 100 g of the resin modifier (C), and a polar group-containing polymer (D), wherein the polar group-containing polymer composition (F) has a notched 23°C IZOD value in a thickness of 1/4 inch of 100 J/m or more.

13. The polar group-containing polymer composition (F) according to claim 7, wherein a diameter of an island phase is from 0.1 to 50 μm .

14. A polar group-containing polymer composition (F) obtained by melt mixing a polyolefin (A) having a group which reacts with a carbodiimide group, and a carbodiimide group-containing compound (B), and further kneading and mixing the kneaded product with a polar group-containing polymer (D).

15. A method for producing a resin composition comprising kneading and mixing a polyolefin (A) having a group which reacts with a carbodiimide group, and a carbodiimide group-containing compound (B), and further, kneading and mixing the kneaded product obtained and a polar group-containing polymer (D).